




Interruption criterion for a turbo decoder

Patent number: EP1128589
Publication date: 2001-08-29
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Classification:
 - international: H04L1/00; H03M13/29; H03M13/45
 - european: H04L1/00B2, H03M13/29T, H03M13/41, H03M13/41P
Application number: EP20010400388 20010214
Priority number(s): FR20000001984 20000214

Also published as:

 US2002013922 (A1)
 JP2001257601 (A)
 FR2805106 (A1)

Cited documents:

 US5761248
 US5446747
 US5983385

Abstract not available for EP1128589

Abstract of correspondent: **US2002013922**

A digital transmission method of the error correcting coding type comprises a coding procedure before transmission and a decoding procedure in order to obtain a correction of the transmission errors. The said coding procedure comprises a plurality of elementary coding steps associated in parallel or in series. The decoding procedure is iterative and comprises, for each iteration, a plurality of elementary decoding steps (50) which correspond to the said plurality of elementary coding steps and which each generate at least one extrinsic information item. According to the invention a characteristic quantity determination step (51) calculates a characteristic quantity from a set of weighted output information, on items generated by an elementary decoding step (50) for processing a decoding sequence. A comparison step (53) is adapted to compare the said characteristic quantity with a threshold quantity determined by a threshold quantity determination step (52). An interrupt step (54) interrupts the said decoding procedure at an elementary decoding step (50) for which the said characteristic quantity attains the said threshold quantity. Advantageously, the said threshold quantity determination step (52) determines a threshold quantity so as to effect a compromise between the performance permitted by the said decoding procedure and the complexity of this decoding procedure. Likewise, the said threshold quantity determination step (52) can determine a threshold quantity as a function of a required mean transmission time or as a function of an acceptable mean energy consumption.

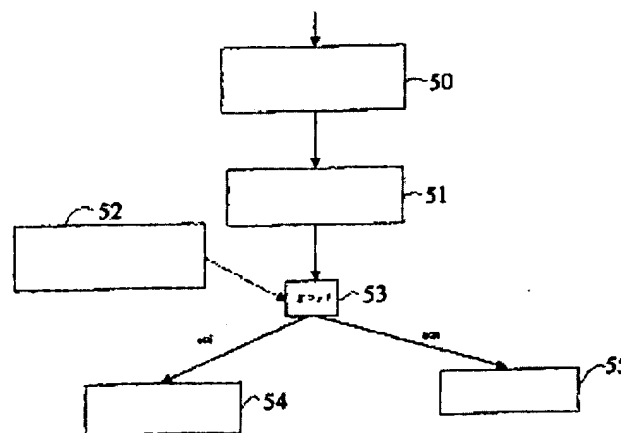


Fig. 4